bintec elmeg
Teldat Group Company

WLAN ACCESS POINTS

Economic WLAN Access Point

bintec W1001n

- Management via WLAN Controller or operation as Master-AP
- Operation as WLAN HotSpot optional
- Single radio module for 2,4 GHz or 5 GHz operation
- Integrated Mimo antennas for 2,4/5 GHz
- One Gigabit Ethernet Port with PoE (Power over Ethernet)

bintec W1001n

Economic WLAN Access Point

The bintec W1001n is a manageable access point with one radio module and fits perfectly for applications which require only one frequency band. The bintec W1001n provides the same software features as the products from the W Series.

Product Description

The bintec W1001n offers three different modes of operation. You can operate the device as a stand-alone access point or manage it from a central bintec WLAN Controller. The W1001n can also function as a WLAN Controller itself (master access point) and manage up to six APs. The bintec WLAN Controller solution can be used in wireless networks with anywhere from 2 to 150 access points. The bintec WLAN Controller solution provides a scalable, end-to-end solution that lets you expand your network without migrating to a new technology. This flexibility protects your investments in existing infrastructures.

Clean lines and elegant design make this device an appealing choice for wall- or ceiling-mounting. It looks perfectly at home in high-end office spaces or hotels. Despite its handsome appearance, this access point also knows how to blend in. We've placed the antennas inside the housing, and you can turn off the LEDs to eliminate distractions.

The housing itself comes ready for wall mounting, eliminating the need for an additional wall-mount bracket. A bracket is available as an optional accessory for mounting the device on the ceiling. This ceiling-mount bracket also allows the device to be secured against theft by means of a Kensington lock. As an alternative to wall-or ceiling-mounting, you can also place the W1001n on a desktop thanks to the included rubber feet.

Whether you're operating a standalone access point or using a WLAN Controller, you can take advantage of the optional HotSpot solution that allows you to provide controlled access to your network for guests - an ideal solution for hotels and restaurants.

The W1001n also supports handover and roaming. That means with a properly set up and surveyed wireless network managed by a bintec WLAN Controller, wireless devices enjoy seamless coverage throughout the network. And seamless coverage is a must if you are, for instance, implementing a VoWLAN (Voice over WLAN) solution or using wireless barcode scanners for logistics applications.

The W1001n gives you green IT right out of the box with its automatic energy-saving features. If no client is connected, these APs turn off any circuits not currently in use, downshifting to MIMO 1x1. The Gigabit Ethernet ports support the energy-saving 802.3az standard, ensuring only as much energy as needed is used.

In addition to its access point functionality, the device can also be used as a wireless LAN client to give Ethernet-ready devices such as printers access to the wireless network. In addition, these units can also function as a wireless bridge links in point-to-multipoint mode with up to eight links. The ability to use a single radio module simultaneously as an access point and to operate a bridge link master makes it particularly efficient to implement wireless backbones. In these two operating modes, it is not possible to also use the device as a WLAN Controller.

Variants

bintec W1001n (5530000173)	W1001n, Economic WLAN Access Point with 1 single radio module acc. 802.11abgn (2.4/5 GHz) Mimo 2x2, 1 Gigabit ETH, PoE, integr. antennas, incl. wall mounting, incl. WLAN Controller license for Master AP, shipment without 100-240V wall adapter

Features

Wireless LAN	
WLAN standards	802.11n (Mimo 2x2); 802.11b; 802.11g; 802.11a; 802.11h
Frequency 2,4 GHz Indoor/Outdoor	2,4 GHz Indoor/Outdoor (2412-2484 MHz)
Frequency 5GHz Indoor	5 GHz Indoor (5150-5240 MHz)
WLAN Modes	2,4 GHz Operation: 802.11b only; 802.11g only, 802.11b/g/n mixed; 802.11b/g/n mixed long; 802.11b/g/b mixed short; 802.11b/g/n ; 802.11g/n; 802.11n only
WLAN Modes	5 GHz Operation: 821.1a only; 802.11a/n; 802.11n only
RX Sensivtiy	up to -95dBm without antenna gain
TX Power @ 2,4GHz	up to 16dBm without antenna gain
TX Power @ 5GHz	up to 16dBm without antenna gain
TX Power adjustable	5dBm, 8dBm, 11dBm, 14dBm, 17dBm, max.
Channel selection	Automatic or manually
Automatic Rate Selection	Supported
Transmission rates	Automatic
Number of spatial streams (802.11n)	1 or 2
Multi SSID	Up to 16 SSID per radio with own MAC address for each SSID. Each SSID can assign to a VLAN to separate the traffic.
Broadcast SSID	Selectable on/off

Security	
Wireless security	Open, WEP64 (40 Bit key), WEP128 (104 Bit key), WPA Personal, WPA Enterprise, WPA2 Personal, WPA2 Enterprise
IEEE802.11i authentication and security	802.1x/EAP-MD5, 802.1x/EAP-TLS, 802.1x/EAP-TTLS, 802.1x/EAP-PEAP, Key Management, PSK/TKIP Encryption, AES Encryption, 802.1x/EAP
Access control list (ACL)	MAC address filter for WLAN clients (white list) and dynamic and static blacklist. Black list function requires WLAN Controller

Security

WIDS (Wireless Intrusion Detection System)	Rogue AP detection: detect foreign Aps, which try to sp out data via SSIDs by permanent background scanning. When the attack is detect a SNMP trap or a email alert can be send. This functionality requires WLAN Controller.
WIDS (Wireless Intrusion Detection System)	Neighbor AP detection: Detect AP in the neighborhood, which can reduce the performance at the own network. In case of detection a SNMP trap or a email alert can be send.This functionality requires WLAN Controller.
WIPS (Wireless Protection Detection System)	Rogue Client Detection: detection and protection detect conspicuous clients, which try to intrude or interfere the wireless network.In threat case blocking by dynamic black list. This functionality requires WLAN Controller.
VLAN	Network separation at layer 2. For each SSID ist one VLAN ID possible. Static VLAN configuration according IEEE 802.1q, supports up to 32 VLANs.
Intercell repeating	Inter traffic blocking for public HotSpot (PHS) applications for preventing of communication WLAN client to WLAN client in a single radio cell

Software

Airtime fairness	Optimizing the throughput when slow clients or clients there are far away are connected
Client load balancing	Avoid overloading of the AP in the case that many users are connected. Allow the movement of clients to other AP in case of high load.
Limitation of the number of clients	From 1to 250 clients. It could be useful to allow more than 32 clients with applications with low bandwidth requirement.
Throughput limitation	A maximum throughput can be defined for each client. Defineable or each SSID
TPC	TPC (Transmission Power Control): For 5 GHz, automatic TX power reduction according EN301893)
WMM 802.11e QoS	Data priority for TOS tagged data according 802.11e/WMM
WMM 802.11e Power Save	Supports WLAN Clients there supporting 802.11e power save and U-APSD
Roaming	Seamless Roaming through IAPP (Inter Access Point Protocol) support according 802.11f useful for VoWLAN phones and for Wireless Barcode scanner.

Administration / Management

HTTP/HTTPS	Web based configuration
Configuration management	Via Telnet, SSH, HTTP, HTTPS, SNMP
SNMP	SNMP (v1, v2, v3), USM Model, VACM Views, SNMP Traps (v1, v2, v3) selectable, SNMP IP access list configurable
SNMP Configuration	Complete Management according MIB-II, MIB 802.11, Enterprise-MIB
SSH Login	Support SSH V1.5 and SSH V2.0 for secure connection of terminal application
Configuration backup/restore	Backup/Restore to/from file
Backup	Optional encrypted backup file
Backup	Optional automatic backup via scheduler
WLAN Controller operation	Manageable with the bintec WLAN Controller according CAPWAP (DHCP option RFC1517)

Administration / Management

Master-AP operation	Integrated WLAN controller for 5 additional bintec AP

Hardware

LAN/WAN Interface	One interface 10/100/1000 Mbps, autosensing, auto MDI/MDIX
Ethernet connectors	One RJ-45 socket
Antennas	Two integrated dual band antennas @2,4GHz peak gain 4 dBm @5GHz peak gain 3 dBm
Power Supply	9V/1,3A DC ; 100-240V AC wall adaptor with Euro plug or PoE according 802.3af or 802.3at (Wall adaptor and PoE injector not included)
Power Consumption max.	ca. 6,5 Watt
Power Consumption in networked standby mode	< 4,5 Watt
Dimensions	Approx. 15.9 cm x 14.5 cm x 4.3 cm (width x depth x height)
Temperature conditions	Temperature operating: 0°C to 40°C; storage: -10°C to 70°C; rel. Humidity 10 to 95% (non condensin)
Housing	Plastic
Theft protection	Theft protection integrated, Kensington ® compatibel
Mounting	Wall mounting integrated at the housing Rubber pad for desktop operation included Ceiling mounting unit as accessory available

Operation Modes

WLAN AP	WLAN Access Point stand-alone or WLAN Access Point managed by a WLAN Controller or WLAN Master-Access Point can control up to 5 additional AP
WLAN Bridge	WLAN Bridge link Point-to-Point or Point-to-Multipoint
WLAN Client	WLAN Client operation

Software Features for AP stand-alone operation

Captive portal function / HotSpot	Additional external RADIUS server or bintec HotSpot license required
Internet Dial-up	PPPoE, PPTP
NTP	NTP Client, NTP Server, manually
DHCP	DHCP client, DHCP server, DHPC relay
VPN	IPsec, L2TP, PPTP, GRE

Software features for WLAN Client operation

Software features for WLAN Client operation

Functionallty	Layer 2,5 Bridge for connect several IP based device and one non-IP device to a wireless network.
Wireless security	Open, WEP64 (40 Bit key), WEP128 (104 Bit key), WPA Personal, WPA2 Personal
Roaming behavoiur	Selectable (no, slow, normal, fast, customized roaming). For fast moving clients (i.e. vehicles) to be archive a seamless roaming. This feature is realized by scanning the relevant channels in the background.
Scanning functionallty	Show a list of available AP in the area
Station list	For one SSID, manually configuable or configuable by using the scanning function
Monitoring	Detailed information for each link (Uptime, Signal, Noise, Data rate, ...)

Software features for WLAN Bridge operation

Configuration	Applicable as Access-Point/Bridge-Link Master or as Bridge-Link Client
Application	For Point-to-Point or for Point-to-Multipoint (up to 8) applications.
Wireless security	WPA2 Personal
Monitoring	Detailed information for each link (Uptime, Signal, Noise, Data rate, ...)

Approvals

CE approval	R&TTE Directive 1999/5/EG; EN 60950-1 (IEC60950); EN 300 328; EN 301 489-17; EN 301 489-1; EN 301 893;

Supervision

Syslog	Syslog Client with different level of the messages
eMail Alarm	Automatic eMail if any defined event occurs
SNMP Traps	Supported
Interfaces statistic	Statistic information for all physical and logical interfaces
WLAN Monitoring	Detailed information about the radio, SSIDs, Bridge link, clients. For each link MAC address, IP address, TX packets, RX packets, signal for each antenna, Signal/Noise value, data rate.
WLAN History view	Show the performance values based on WLC, AP, SSID, Client level help to detect any bottlenecks
Scheduler	The following events are plan able: device reboot, activate/deactivate interfaces, activate/deactivate SSIDs, trigger of software update, trigger of configuration backup

Accessoires

Pick-up Service / Warranty Extension

Service Package 'small' (5500000810)	Warranty extension of 3 years to a total of 5 years, including advanced replacement for bintec elmeg products of the category 'small'. Please find a detailed description as well as an overview of the categories on www.bintec-elmeg.com/servicepackages.

Add-ons

PS-US-Wx003n/Wx004n (5500001726)	Wall power supply with US-plug for W1001n, W1003n, W2003n, W2003n-ext, W2004n, WI1003n
PS-EURO-Wx003n/Wx004n (5500001254)	Wall power supply with EU-plug for W1001n, W1003n, W2003n, W2003n-ext, W2004n, WI1003n
Wall mounting Wx003n/4n/4Ge-LE (5500001278)	Wall and ceiling mounting (spare part) for W1001n, W1003n, W2003n, W2003n-ext, W2004n, 4Ge-LE
Gigabit PoE Injector (5530000082)	PoE Injector for LAN 10/100/1000 Mbps, 100-240V, EU plug, output 48V/0.35A; suitable for Access Points, IP phones, etc.